

# the new *drive.web* *smarty*

## The ultimate programmable controller for coordinated drives

The innovative *drive.web* technology uses distributed control over Ethernet to provide cost effective, high performance integration for drives in systems of any size or complexity without the need for a PLC or supervisory computer. Intuitive configuration tools incorporate dynamic, graphical function block programming, drag & drop connections, powerful navigation features and self-documenting signal flow diagrams.

The new *smarty* brings greatly enhanced performance, smaller packaging and even better value to the remarkable family of *drive.web smarty* and *speedy* products.

The *smarty* range of compact, DIN rail mounting, *drive.web* controllers offers a wide selection of i/o and communications options.

*smarty*, used solo or in peer-to-peer networks, can easily be interfaced to most drives, operator stations, PLCs, etc.



Approximate actual size



### *smarty* FEATURES

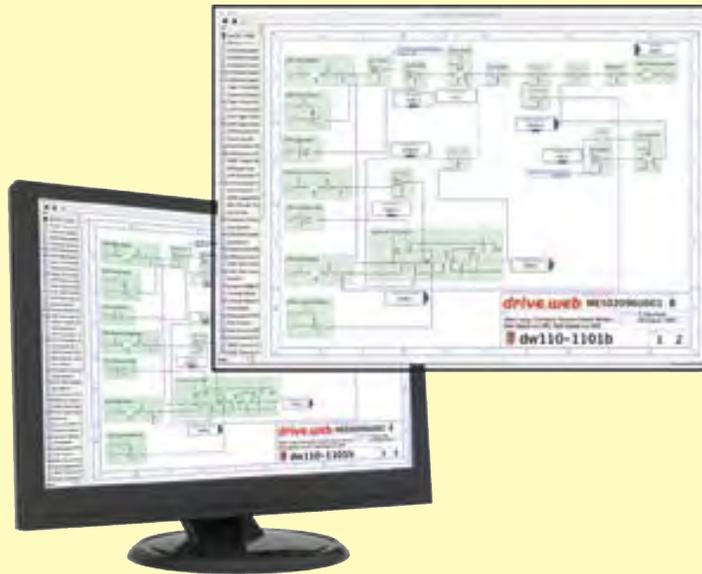
- Easy interface to most drives
- Use networked or stand alone
- Internet accessible
- Peer-to-peer deterministic Ethernet networking
- *drive.web* distributed control
- ModbusTCP/IP over Ethernet with easy configuration interface
- Cost effective for systems of any size or complexity
- Intuitive, graphical function block programming tools
- Self-documenting signal flow diagrams
- Complete graphical configuration & documentation data stored in devices
- 16 high resolution, flexible, configurable, analog/logic i/o
- Optional i/o includes:
  - Encoder input without marker, with 5VDC encoder supply
  - 1 or 2 encoder inputs with marker, 5VDC supply & retransmit
  - 1 or 2 isolated or unisolated RS485 ports
  - High voltage digital i/o isolator
- Firmware field upgradable
- SNTP server time synchronization support
- 100% backward compatible with all existing *drive.web* installations
- Compact, stylish DIN rail mounting package

### EASY, RELIABLE SOLUTIONS

- Coordinated line drives
- Winders
- Position control
- Electronic line shaft
- Spindle orientation
- Registration
- Remote system access
- Drive system integration
- Distributed i/o



# smarty



**TOOLS** - The *savvy* graphical design software can be downloaded FREE from [www.driveweb.com](http://www.driveweb.com)

**INSIGHT** - The signal flow diagram option provides a clear, easy to navigate presentation of all system connections & functions.

**SUPPORT** - FREE weekly online training seminars ensure a quick and easy start to system design. To register please call us or contact [training@driveweb.com](mailto:training@driveweb.com).

**drive.web**  
**inspired ideas**  
**innovative solutions**

## MODEL dw210

**smarty** Programmable Controller with **drive.web** distributed processing and:

Peer-to-peer Ethernet networking with:

- 10/100baseTX Ethernet with auto-negotiation
- Full duplex supported
- Auto-MDIX per IEEE802.3ab (auto-crossover resolution)
- Optional Power over Ethernet (PoE, IEEE 802.3af)

Basic function block library with arithmetic, logic, clamps, switches, PI, and utilities

8 configurable i/o: +/-10V, 16 bit analog in, or +/-10V, 14 bit analog out, or 24V digital in.

8 configurable i/o: 0-10V, 16 bit analog in or 24/12/5V digital in or 24V digital out, source or sink

Dimensions: 4.1" high, 4.8" deep, 0.9" wide (104 x 122 x 22.5 mm)

### dw210 Options

- 04 Modbus TCP/IP slave over Ethernet
- 05 Process Control Function Block Library (PIDs, profilers, comparators, timers, latches, filters, etc.)
- 06 Winder Control Function Block Library (dia calc., taper tension, torque compensation, etc.)
- 10 Math Function Block Library (trig, log, exp.)
- 11 Encoder control Function Block Library (shaft lock, phase lock, registration, position control)
- 14 Power over Ethernet
- 15 Internal encoder input (2-24 volts, differential A & B, without marker, with 5VDC encoder supply)
- 16 External encoder module interface port
- 18 ModbusRTU slave (RS485) isolated port + external encoder module interface port
- 19 ModbusRTU slave (RS485) isolated port + ModbusRTU (RS485) master unisolated
- 23 ModbusRTU master (RS485) isolated port + external encoder module interface port
- 30 115VAC digital i/o voltage isolator (each with 2, NO contacts + common and 4, 115VAC inputs +common), up to 2 per smarty
- 31 230VAC digital i/o voltage isolator (each with 2, NO contacts + common and 4, 230VAC inputs +common), up to 2 per smarty



**smarty** model dw210 with external encoder module

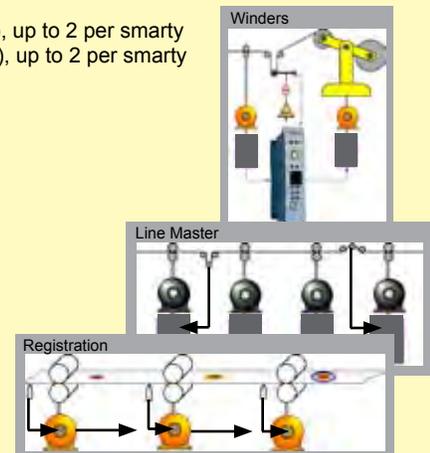
### **smarty** external encoder module (needs a **smarty** dw210 option -16, -18 or -23)

- 40 External single encoder module, 2-24 volts with marker, 5VDC encoder supply & one 24V event input
- or -42 External dual encoder module, 2-24 volts with marker, 5VDC encoder supply & two 24V event inputs
- 45 External encoder module RS422 retransmit outputs ( $\pm 1A$ ,  $\pm 1B$ ,  $\pm 2A$ ,  $\pm 2B$ )
- or -46 External encoder module 24V retransmit outputs ( $\pm 1A$ ,  $\pm 1B$ ,  $\pm 2A$ ,  $\pm 2B$ )

### **smarty** application packs - pre-configured, engineered solutions

**smarty** application packs are pre-configured, engineered solutions for common applications. They are easily edited to suit specific installations and the self-documenting capability can save many hours of program design and development time.

- |            |   |
|------------|---|
| dw210-1101 | Open loop constant tension center winder      |
| dw210-1102 | Closed loop dancer controlled winder          |
| dw210-1103 | Closed loop loadcell controlled winder        |
| dw210-1104 | Slip core winder controller                   |
| dw210-1105 | Electronic line shaft                         |
| dw210-1106 | Coordinated drive, line master controller     |
| dw210-1107 | Controller and networking for an analog drive |



### **drive.web** control technologies

[www.driveweb.com](http://www.driveweb.com)

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